



AUTOMATION OF ELECTRICITY CONSUMERS

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Abstract: During the transition to the market economy, factories for the processing of agricultural products are being established. New technologies and technical tools are widely used in breeding livestock and agricultural products, the number of microclimate-creating and auxiliary electrified devices in residential areas and the household sector is increasing.

Key words: Agricultural products, technology, equipment, energy, energy resource, capacity.

A press conference was held at the information and Mass Communications Agency under the administration of the president of the Republic of Uzbekistan on the topic "New meters installed to account for electricity consumption: problem and solution".

JSC" Regional Power Networks", Center for automation of electricity accounting, participants of JSC" Tashkent City Power Networks", experts and media representatives of the industry, paid the main attention to the existing problem in the field and their solution, it noted that within the implementation of the decree of the president of the Republic of Uzbekistan dated October 23, 2018 "on measures to ensure the rapid development and financial stability of the electric power sector", the installation of meters corresponding to the requirements of the ASKUE system is an important step in eliminating the shortcomings necessary to solve in the system [1-4].

– The main goal of implementing the ASKUE system is to ensure transparency between the consumer and the supplier, "said Jahongir Obidzhonov, first deputy chairman of the board of the Joint – Stock Company" regional power networks " in the Ministry of energy system. – At the same time, it is necessary to clarify the calculations for the supplied electricity, to carry out modernization work by obtaining and analyzing the necessary information on the cross section of each consumer and transformer point in the distribution of electricity. Moreover, this system is important in creating a transparent relationship, eliminating any misunderstandings between the supplier and the consumer [5-9].



- The South Korean company KT Corporation, as a subcontractor, brought Chinese KAIFA counters, and 3 regions — Samarkand, Jizzakh and Bukhara Regions — 1 million 400 thousand (from \$ 64 per grain-Ed.) were installed. While a total of 7 million 400,000 meters were required, another 6 million meters were needed for the rest of the regions. These meters were localized by the instructions of the head of our state (grain from \$ 48). "Electronic meter "is produced by QK and" Toshelektroapparat " LLC on the basis of the unified technical requirements of the Korean company, not inferior to the Chinese product [10-15].

— Even in all our meters, the level of accuracy meets today's requirements. That is, around 0.1 percent-this means that there may be so much difference in the amount of electricity passing through the meter. This is no account.

Meters being developed in Uzbekistan.

— Why are the indicators in New meters two different? People are asked why the indicator on the counter is different, in the personal cabinet it is completely different.

- First, not all built-in meters are connected to a 100 percent billing system. That is, of all of us, we do not accept an indicator. Manual recording of indicators is stopped. Now we are trying to install concentrators faster and connect all consumers to the billing system [16-19].

- Indicator dual?

- The indicator duality follows from this. That is, let's say, the meter indicator is given 3-4 months ago. After that, you will be taken in the middle account, that is, between two indicators, and the calculation is being made. For example, if you spend an average of 1 kW in a day, the program will continue to be calculated in this order. This indicator was taken in the summer, but you liked it more in the winter. Another indicator on your counter, if you look from a personal cabinet — a discrepancy may arise because it is not yet connected to the system.

— What reason can there be a difference even in the state connected to the system?

- If connected to the system, there can be no difference. The indicator falls on the day, the day ora. If any problems were observed with communication or on the network, and the program did not receive the indicator for 2-3 days, but the system received data every day. It will be written there if you see it today and see it in your personal cabinet two days later, saying, " Based on your palon day indicator, you have the right or so much debt". If there is a fee in the middle score, the program will issue a notification that it is in the middle score.



— What are the factors that cause the billing-connected counter to be paid, but not immediately burned?

— Today we are also observing it ourselves. We are connecting more than 25-30 thousand consumers to billing per day. By installing a concentrator on one TP and connecting the consumers in it to billing, 80-90 percent of the consumer turns out to be in debt. For example, 100-150 of the 200 consumers are found to be in debt. While money is available in the account of 90% of creditors connected to the Billing system, there is a lot of debt in those who are not connected. For this reason, at the same time connected at the same time, a huge number of consumers are disconnected from the network.

Focusing on the principle of operation of a single concentrator, it receives 300 consumer indicators every half hour. In addition, it receives about 100 data from the meter, which also depends on the voltage on the network. We call the normal area—the debt comes out on average, there is no problem turning them off and on. The problem with activating again in the first connections is from system strain. For example, activating 5-10 debtors off 100 consumers in one concentrator is not a job for him [20-22].

Center for automation of electricity accounting.

— Why was the account of the presence of tension in the system not taken in advance?

— Our foreign partners did not think that there could be so much debt when they developed the system. They still have a more developed payment discipline. Deleting into debt can be 10-15 percent, but it would be wrong to say that 70-80-90 is not intended for borrowing, as we did, but at the stage of our first connection there are difficulties. It is almost unobserved after falling on its trail.

The program was developed by the South Korean company KT Corporation, which, together with their servers, connected us to the network. We have developed and integrated local meters into the system.

— As long as the meters are being installed in the Shahrihon District of Andijan for 85 thousand rubles. Are counters put on money?

- Counters are free, their installation is also carried out at the expense of "regional electrical networks". That is, it is a fraud to demand money for any service, our citizens must find out.

- Previously, corruption cases in the system, remuneration for services were observed in large numbers. Are there any such cases now?



- The important thing is that we had controllers before, today we have not taken back a single controller after the MIB. The introduction of an automated system did not leave us with the need for controllers.

— Our (regional electricity networks AJ) goal is to buy electricity to the consumer and make a profit. It is best for us that the consumer consumes. This system was not introduced to disable the consumer. They do not necessarily have to be deleted in order to make their payment on time, but the goal is to achieve the formation of payment discipline even knowing that there is a possibility of extinction. This is also the case in the introduced regions [23-24].

- Counters for \$ 48, funds received from the ADB, the issue of paying it also stands. Does this not lead to an increase in the cost of electricity?

- In the project, this thing was taken into account. The recovery of funds is largely covered by the collection of embezzlement of embezzled elektr energy money, which is lost without consideration, by closing the accounts of the collection of debtor debits, which have not been able to recover for many years.

Through this system we control not only switching on and off, but the process that goes all the way to the consumer of the electricity that enters the province or district. There is no chance at all to scatter electricity, make unfair debts or do others. In each consumer cross section, the amount of electrical energy is formed.

The counter itself signals about consumers who are acting illegally. In the case of various interventions, we have positions, for example, opened the counter cover, tried to form a magnetic field, etc.k.lar. Seeing this, we are sending ourselves our employees. As an example, let's say that 10 thousand rubles went out for debt. Some consumers connect and use it in an illegal way. After 3-5 days, our employee goes and formalizes an act of violation. Now the citizen had avoided paying Rs 10,000, in return, for example, he would have to pay Rs 100,000.

- The underprivileged, those who have lost their breadwinner, or those who spend their days in exchange for disability benefits, cannot pay on time. Their accumulated debt of half or one year was paid by the authorities, sponsors. How will their condition go if the program immediately disables the provision for debt?

— Once the system is fully operational, according to tariffs, it makes it possible to determine the analysis of different segments of the population and distinguish them exactly. We can introduce tariffs by time, for example, cheap and expensive tariffs in the evening or during the day.

For example, for those who spend up to 100 kW, a cheaper tariff is more expensive in the range of 100-200 kW, for people with a net above 300 kW — use 5



demand refrigerators, but after your consumption there will also be an opportunity to introduce the principles that you will pay the tariff more expensive. Whether this is introduced or not depends on our center. However, after the emergence of these different possibilities, the analytical information — how much from what type of consumer is there, how much electricity is being consumed, it all seems. If they are given any privileges, how to add to the rest and bring it to the balance, it is also necessary to take into account.

- So you can create a separate supply line for certain categories of consumers through the system, is it?

— There are opportunities within the system that we can distinguish at any time, consumer and consumer volume cross section. We can also put the tariff based on this.

Servers in the center. The software is designed to connect 8 million consumers, in the future there is an opportunity to bring this figure to 20 million.

-Does the decrease in pressure in the power supply in the autumn-winter season also depend on the center?

— Our system began to release diagnostics of this too. Everyone before said, "Why did the transformer or line in the uni neighborhood come down to modernization, mine didn't fall?"the question would have arisen. Or if there are various familiar-knowing ways to send as, frankly. Today, through this system, we are modernizing the most painful points in the first place, due to the transformer load and losses on the line.

Using the information in the program, there are Transformers and lines that will be modernized this year.

— With ASKUE being a new system, the blood circulates, that is, the lines of the elektr networks are old. How will this issue be resolved.

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